

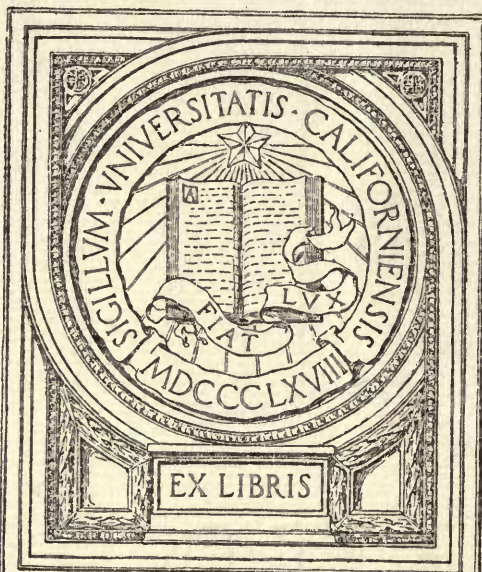
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IN MEMORIAM
Prof. E.J.Wickson



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State of
California

IN THE MATTER

OF

**Application of San Francisco
for Reservoir Rights
of Way**

AT HEADWATERS
OF THE TUOLUMNE



BRIEF OF THE
MODESTO WATER CONSUMERS
ASSOCIATION

MODESTO,
STANISLAUS COUNTY,
CALIFORNIA.

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MAIN LIBRARY-AGRICULTURE DEPT,

E. J. Miskern

**In the matter of Application of San Francisco for
Reservoir Rights of Way at the Head Waters of
the Tuolumne:**

Modesto, Cal., September 10th, 1907.

Hon. James R. Garfield,
Secretary of the Interior.

Dear Sir:—

The Modesto Water Consumers Association respectfully submit the following reasons why they cannot share the waters of the Tuolumne with San Francisco:

In the first place, the question is not at issue whether there is or is not water enough discharged by the Tuolumne to supply all parties, but whether there is an available supply.

We claim to be able to prove that there is not now, nor will there ever be, enough water impounded by means of reservoirs to supply San Francisco and the Modesto and Turlock Irrigation Districts (See Exhibit "A"), and if there is not enough reservoir water for the two districts when San Francisco appropriates the only two eligible reservoir sites, Hetch-Hetchy and Lake Eleanor, how can it

TO THE LEGISLATURE

—2—

be possible to supply the 240,000 acres of irrigable land outside of the two districts (See Exhibit "B" and map) with the indispensable supply of water?

Our irrigation system, which has been initiated at the cost of millions of dollars, will not be complete nor will it ever be worth the price already paid, if we are denied the privilege of completing our system by the building of reservoirs where we had at first designed—at Hetch-Hetchy and Lake Eleanor. Why at these reservoir sites? Because they can be made to impound more than one-half as much water as all of the other dozen on the Tuolumne watershed. Mr. Marsden Manson stated before the irrigators at Modesto on August 20th, that the districts could impound their waters in other reservoirs on the Tuolumne, but all of the others—eleven of them—would only impound 132,545 acre feet, when the requirements for the two districts, during the dry months of July, August and September, would call for 281,351 acre feet from reservoirs, together with 127,840 acre feet, the normal flow of Tuolumne during July, August and September averaged for the seven years between and inclusive of 1896 and 1902, (See California Hydrography by J. B. Lippincott, Page 389.)

In other words, the two districts would get only water enough during the three dry months for 85,000 acres out of 257,353 acres, were all of the reservoirs to be utilized outside of Hetch-Hetchy and Lake Eleanor. Mr. Manson says that in his opinion other reservoir sites besides these above referred to will be discovered, but is it likely that

those conducting the Government Geologic survey would have overlooked any reservoir sites worthy the name after estimating upon such insignificant sites as Hull Meadows with its 2160 acre feet and Errara's Meadows with its 1070 acre feet and the other small reservoir sites? I think not, at least we can say that here is a case of mere conjecture on the part of Mr. Manson confronted by cold facts on the other side. But, even granting that a few more reservoirs could be discovered, it would take more than double the eleven to supply the necessary storage water for the districts, to say nothing of that vast extent of irrigable land outside of the districts which in time will demand all the water of the Tuolumne, could every drop be impounded.

Again where is the justice in demanding that we obtain our meager and inadequate supply of water from numerous ponds, necessitating a small army of attendants, and an outlay of a large sum of money, to build and keep up the works and defray running expenses?

Mr. Manson stated at the recent interview with the irrigators in Modesto that the reason the City of San Francisco had applied for reservoir privileges on the Tuolumne was that all the Water Companies that proposed to furnish water had done so at exorbitant rates, but it would well pay San Francisco to pay ten prices to some water company, than to force its supply from a semi-arid region like ours, because our section is, by reason of its geographic position, tributary to San Francisco, and must continue for all time to pour its irrigated treasures into her lap. It follows then, that she

is now blindly seeking to cut off and cast away the treasures designed for her own enrichment.

What is to become of prescriptive rights if we who were here first and underwent years of privation and conflict with the anti-irrigationists to establish one of the grandest and best samples of a co-operative irrigation system, if we were to be told by that benign government that is fostering irrigation projects everywhere, "Get to the rear and thankfully receive any water that San Francisco may have to spare!" Mr. Manson demands for San Francisco fifteen per cent of the annual discharge of the river. The annual discharge averaged for seven years from 1896 to 1902 inclusive (See California Hydrography by J. B. Lippincott) is 1,746,234 acre feet, and fifteen per cent of this amount equals 261,935 acre feet. This includes 224,182 acre feet, the maximum for domestic purposes, and 37,753 acre feet for the generation of power.

All of the reservoirs combined on the Tuolumne can impound only 20 6-10 per cent of the annual discharge of the river. Hetch-Hetchy and Lake Eleanor together will hold, the first with a 200-foot dam and the latter with a 150 foot dam, 224,182 acre feet and all the rest—eleven of them—are estimated to hold only 132,545 acre feet. The sum equals 356,727 acre feet, which is 20 4-10 per cent of the annual flow of 1,746,234 acre feet (See California Hydrography by Lippincott P. 389 and Survey plat in Book No. 4). Of this 20 6-10 per cent the San Francisco Supervisors demand fifteen per cent, or three-fourths. If they obtain it,

the irrigation districts will not be able to irrigate one-half of their area when water is most needed i. e. in July, August and September. The irrigation districts will need during the latter half, which is the dryest half of the irrigation season of six months, 409,191 acre feet, which is obtained by multiplying the depth of irrigation 3.18 feet (See Exhibit "C"), according to the number of second feet appropriated in the two districts (2250) by the number of acres 257,353 acres, and the product is as above, 409,191 acre feet. From this product we deduct 127,840 acre feet, the average quantity that flows during July, August and September (See P. 389 Cal. Hydrography) for this is also made use of by the districts, and the difference, 281,351 acre feet, is what the districts must get from the reservoirs to make out the small appropriation of 2250 second feet. This 281,351 second feet is 16 1-10 per cent of the entire flow of the river. If we use it, San Francisco people will get less than a third of what they will require. Please note that this demand on the full reservoirs by the districts from July 1st is in addition to the water furnished by the river in continual flow during the hottest and dryest part of the irrigation season.

Ten thousand acres are now knocking at the door of the Turlock District for admission, and they will soon be taken in, and I understand that people east of the Modesto District with 10,000 to 15,000 acres more, will apply to be admitted into the Modesto District. When these additions shall have been made, the two districts will exactly take 20 per cent of the entire flow of the Tuolumne,

and that means the entire available supply from reservoirs, so that about 200,000 acres outside of the two irrigation districts will be barred out of any reservoir privileges, under the most favorable circumstances. It has been suggested that we resort to winter irrigation, to offset the disadvantage of a scarcity of water later in the season, but those that have practiced it though reaping somewhat of an advantage in the early part of the seasons have been compelled to use water just as freely toward the latter part of the season for then the ground gets very dry by the hot sun and the desiccating winds, and from July 1st on we need even more than the full share of the appropriation.

The navigability of the San Joaquin River is a great desideratum, the taking away of the waters of the Tuolumne, as Mr. Phelan of San Francisco proposes, will render the San Joaquin innavigable to a greater extent than it is; whereas, the water used in irrigation on either side of the river finds its way directly or by under ground currents either into the Tuolumne again or into the San Joaquin. If San Francisco would obtain her water supply from some tributary of the Sacramento she would confer a real benefit on the State of California by helping to prevent destructive floods without interfering with navigation or with irrigators.

Our people are virtually a unit in opposition to Mr. Phelan's water scheme. (See Exhibit "D").

We especially call your attention to the following circumstances likely to occur: San Francisco, if permitted to build reservoirs at Hetch-Hetchy

and Lake Eleanor, will on the plea of preserving the purity of the waters, cause to be fenced about five hundred square miles of watershed above those reservoirs and in that case she would surely eject all campers within the area above mentioned as trespassers thus defeating one object of the Government in setting apart the lands comprising the National Park. The object having in view the pleasure and recreation of the people, whereas, if the reservoirs are reserved for irrigation purposes, full liberty to the people would still be given as designed.

Mr. Marsden Manson and Mr. Galloway, engineers sent to Modesto by the San Francisco Board of Supervisors to interview the irrigators of Modesto and Turlock Irrigation Districts on the Hetch-Hetchy scheme, very frankly stated that San Francisco wanted Hetch-Hetchy and Lake Eleanor for reservoir purposes and desired to obtain absolute control of the same with no compromise to make regarding the division of water, in utter disregard of the rights of irrigators; thus showing an entire change of front from that maintained at the hearing on the 24th of July in San Francisco, when Mr. Manson emphatically assured you that San Francisco was willing to grant reasonable concessions.

We also would call your attention to the fact that initiatory steps have been taken whereby Oakland is to share in the water from Hetch-Hetchy should your Honor permit the diversion of the waters of the Tuolumne to San Francisco. The privilege of sharing said waters no doubt in time to be

extended to Berkeley and Alameda as the Supervisors of San Francisco once designed, which would of course aggravate the injury to our irrigators.

In the light of these facts and figures how can we complete our irrigation system without storage?

How can San Francisco afford to put a blight upon a region of country whence she is to draw her greatest prizes?

V. E. BANGS, President,
A. C. BOYLE, Secretary,

Modesto Water Consumers Association.

EXHIBIT "A".

Reservoir sites on the Tuolumne estimated by U. S. Geological Survey:

Hetch-Hetchy, dam 150 feet high, containing 107,426 acre feet.

Lake Eleanor, dam 95 feet high, containing 47,290 acre feet.

Lake Vernon, containing 21,080 acre feet.

Big Meadows, containing 11,000 acre feet.

Tuolumne Meadows, containing 43,185 acre feet.

Coffin Hollow, containing 2,200 acre feet.

Granite Lake, containing 3,300 acre feet.

Hull's Meadows, containing 2,160 acre feet.

Errara's Meadows, containing 1,070 acre feet.

Cherry Valley, containing 2,500 acre feet.

Bell's Meadows, containing 6,300 acre feet.

Emigrants Lake, containing 14,250 acre feet.

Huckelberry Lake, containing 25,500 acre feet.

EXHIBIT "B".

On page 25 of "Agricultural Features of California" by E. W. Hilgard, Professor of Agriculture in the California University, published in 1884, we find the following reference to the Tuolumne: "The Tuolumne River comes from the mountains through a most forbidding canon * * * * * For thirty of the forty-two miles of the river's course it is bordered by plains sufficiently even in surface to admit of irrigation on a large scale to advantage, having soils particularly adapted to the practice."

The width of the two irrigation districts, one on each side of the Tuolumne, is over twenty-two miles. Multiply twenty-two by thirty and we obtain the product 660 square miles which reduced to acres equal 422,400.

As to the foot hills along the Tuolumne we have the following statement on the authority of the Committee on Arid Lands of the California Board of Trade, 1889: "Nearly all of the foot hill country of the Sierra Nevada is not only irrigable but is wonderfully productive when irrigated." (Page 11 of Report of Committee on Arid Lands of Cal. Board of Trade).

It may be seen from the showing that the irrigable area along the Tuolumne could be extended to 500,000 acres.

EXHIBIT "C".

That your Honor may see at a glance that 3.18 feet depth of irrigation entered at La Grange dam

is not excessive, I call attention to the following statistics:

From Pecos River, New Mexico, 6.61 feet. Part 3rd, 371. Report from U. S. Department of Agriculture Bulletin 86. The use of Water in Irrigation. Page 108.

Green Ditch, Utah, 4.52 feet. Part 3rd, 371. Report from U. S. Department of Agriculture Bulletin 86. The use of Water in Irrigation. Page 207.

Upper Canal, Utah, 6.30 feet. Part 3rd, 371. Report from U. S. Department of Agriculture Bulletin 86. The use of Water in Irrigation. Page 206.

Mesa Canal, Arizona 1896, 4.92 feet. Part 2d, 370. Reprint from U. S. Department of Agriculture Bulletin 86, page 117. The Use of Water in Irrigation.

1897, 4.93 feet. Same as preceding authority.

1898, 4.08 feet. Same as preceding authority.

Poplar Ditch, Cal., 1904, 3.19 feet, Part 2d, 547. Reprint from U. S. Department of Agriculture. Office of Experiment Station. Bulletin 119. Page 169.

Plano Ditch, Cal., 7.91 feet. Reprint from U. S. Department of Agriculture. Office of Experiment Station. Bulletin 119. Page 170.

Pleasant Valley Ditch, Cal., 6.31 feet. Reprint from U. S. Department of Agriculture. Office of Experiment Station. Bulletin 119. Page 179.

South Tule Independent Ditch, Cal., 7.46 feet. Reprint from U. S. Department of Agriculture. Office of Experiment Station. Bulletin 119. Page 182.

San Saba River, Texas, 1 cu. ft. to 44 acres, 8.25 feet. Water Supply and Irrigation paper No. 71. Irrigation Systems of Texas by Thomas W. Taylor. Page 32.

NOTE: The above figures given as depth of irrigation do not include the rainfall.

EXHIBIT "D".

Following is a list of public bodies that at different times have protested against the action of San Francisco in its endeavor to acquire water rights on the Tuolumne: The Oakdale Canal Company, The University Farmers Institute at Modesto, The Stanislaus Board of Trade, The Board of Directors of the Modesto and the Turlock Irrigation Districts, The Republican Party in County Convention, The Democratic Party in County Convention, The City Trustees of Modesto, The West Side Irrigation Association, and the Board of Supervisors of Stanislaus County, who passed unanimously the following resolutions on March 7, 1904:

"WHEREAS, It has come to the knowledge of this Board that a bill has been introduced in the Senate of the U. S. granting to San Francisco the use of Lake Eleanor and Hetch-Hetchy Valley for reservoir sites;

"And, Whereas, this county is greatly interested in keeping a sufficient water supply for the Modesto and Turlock Irrigation Districts, and the passing of such act would seriously imperil the future of these districts and of this county, be it

"RESOLVED, By the Board of Supervisors of Stanislaus County, that said board hereby expresses its disapproval of such act and respectfully request of the Senate and House of Representatives that such bill be not passed and that in any legislation enacted, the interests of this county and of the districts be safeguarded.

"Resolved, That a copy of this resolution be sent to the Committee on Public Lands of the U. S. Senate and to our Senators and Representatives in Congress."

Recently the following public bodies have protested against the granting of reservoir sites to San Francisco:

Board of Supervisors of Stanislaus County.

Board of Trade of Stanislaus County.

Turlock Water Consumers Association and

Mass Meeting held at Waterford, Stanislaus County.

Board of Trade of Turlock.

Modesto Water Consumers Association.

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